

AMENDMENTS TO THE CLAIMS

4. (currently amended). A method for optimizing transmission security and failure security in high-bit-rate data networks via signal line redundancy between network nodes such that parallel signal lines, ~~selectors, bridge circuits, and interface modules provided at a network node side~~ are capable of at least one of being occupied and being switched to at least one of a working mode and a protection mode, wherein selectors, bridge circuits and interface modules are respectively provided at the network node side, each of the parallel signal lines is terminated at the network node side with a respective interface module, thereby creating an interface module redundancy, and each interface module is in an active state, said method comprising the steps of:

~~immediately countering an interface a failure of one of the interface modules by error via a signal line changeover, said interface failure error being indicated by at least one of an error message link and a transmission link that are arranged between interface modules of a network node, said network node being at an end of a signal line pair that includes parallel signal lines for conducting at least one of an incoming and outgoing signal, said parallel signal lines terminated at the network node side with an interface module, said interface module containing via a bridge circuit data transmitted through said parallel lines;~~

~~immediately countering a line failure error via a provided by the interface module redundancy; and~~

~~transmitting error messages between the respective interface modules of the parallel signal lines in each of the network nodes at least one of line failure messages and interface failure messages between interface modules of incoming and outgoing parallel signal lines in each of network nodes via a selector and at least one of an error message link and a transmission link.~~

5 (currently amended). A method according to claim 4, wherein the interface modules are regarded as line components of the respective signal lines to be selected, and incoming data is forwarded by the selector~~the interface modules are being regarded as line components when the selector selects at least one of the parallel signal lines and the signal line pair through which data are forwarded.~~

6 (currently amended). An apparatus for optimizing transmission security and failure security in high-bit-rate data networks via signal line redundancy between network nodes, comprising:

~~such that parallel signal lines, selectors, bridge circuits, and interface modules provided at a network node side are~~ capable of at least one of being occupied and being switched to at least one of a working ~~mode~~ line and a protection ~~mode, line;~~ said apparatus comprising:

selectors, bridge circuits and interface modules respectively provided at a network node side, where each network node includes at least two interface modules respectively connected with a signal line pair for incoming and outgoing lines;

an error message link provided between the interface modules of a network node; and
a processing unit for routing data to the at least two interface modules via the bridge circuit, wherein the processing unit receives data from an output side of the interface modules via the selector, wherein

the interface modules of each network node are active, and
the selectors perform a line changeover between a working line and a protection line in the case of line errors or interface module errors.

~~at least two interface modules being part of network nodes, each of said at least two interface modules stands in direct connection with a signal line pair that includes parallel signal lines for conducting at least one of an incoming and outgoing signal,~~

~~a bridge circuit for routing data coming from a processing unit to the at least two interface modules;~~

~~a selector, incoming data present at an output side of said interface module reach the processing unit via said selector, said at least two interface modules always contain via said bridge circuit data that are transmitted via said signal lines, said selector selects via a change over between at least one of a working line and a protection line upon occurrence of at least one of a line error and an interface module error.~~